

## **Understanding your electric costs**

### ***Funniest joke about electricity***

Question: How much does it cost to operate a light bulb?

Answer: That depends on how many teenagers live in the house!

### ***What is a kilowatt hour?***

Basically electricity is billed in 1,000 watt-hour increments, or kilowatt-hours, or KWH. For example, a 1-watt light bulb burning for 1 hour equals 1 watt-hour or 1WH (1 watt times 1 hour).

A common 100-watt light bulb (typical “A” type lamp) burning for 10 hours = 1,000 watt-hours or 1KWH (100 watts X 10 hours).

Therefore, a 100-watt light bulb burning for 24 hours a day, 7 days a week, 52 weeks a year = 873,600 WH or 873.6KWH

The cost for electricity, at my house anyway, for metering, distribution, environmental, transmission, instrument funding and about a half dozen other line items listed on my bill the I don’t understand (but I’m sure I need) is about 12¢ for every kilowatt hour.

At 12¢/KWH x 873.6KWH of usage, that light bulb costs about \$104.84 per year to operate.

### ***Do compact fluorescent lamps save energy?***

The newer compact fluorescent lamps (CFL) are more energy efficient than the conventional incandescent type lamps. However, there are some tradeoffs to be considered. CFL lamps usually have a different color spectrum than conventional “A” type incandescent lamps. They are slower to warm up (not “instant on”), some cannot be put on dimmers and, if the temperature falls below freezing (outdoor lighting or lights in a garage or shed), they may not turn on at all.

Disposal of CFL lamps are subject to hazardous waste rules and regulations in many communities; you may need to take these to a special disposal instead of just tossing them into your trash.

On the up side, using the same formula as above, you can see that CFL lamps can reduce energy costs substantially.

A 26-watt compact fluorescent lamp (CFL) is roughly equivalent in light output to a 100-watt conventional light bulb. Burning 24/7/365, that CFL lamp uses 227.14KWH, or about \$27.26 per year to operate. Quite a difference.

Now obviously your lights aren't on for 24 hours a day, unless of course you have teenagers living at home. But you can see that it does add up.

### ***How to save money on lighting***

Smaller wattage light bulbs, fluorescent lamps, timers, motion sensors and occupancy sensors can all help reduce your energy costs. In other words, if you forget to turn off the lights, these technologies will do that for you.

The newer LED (light emitting diode) light bulbs are the next generation. In its early development, greater energy savings are evident. However, low temperatures are also a problem for these bulbs. It will take a while before LED bulbs are available economically to consumers.

In summary, my two daughters are married now and have moved out of the house. We've changed a few lights to CFL's and installed a couple of motion and occupancy sensors to control other lights. Although my wife and I feel the heartache of not having our girls close by, we have saved almost enough on electricity to pay for our retirement.

Romitti Electric Corporation, [www.Romitti.com](http://www.Romitti.com), offers a Free 12-Point Home Electrical Service Visual Inspection. Romitti serves Chicago's suburban North Shore communities and is family owned and operated. Call 847-831-4471 for your appointment.